Southern California Wetlands Recovery Project
WRP Work Plan Project Descriptions

Tijuana River Estuary and Watershed Program

- Tijuana River Valley Invasive Plant Control Program
- Goat Canyon Enhancement Project, Final Design Plans
- Goat Canyon Enhancement Project
- Tijuana Estuary Tidal Restoration Program - Phase II

1. Goat Canyon Enhancement Project, Final Design Plans

Date Funded: 8/99

Local Lead: Southwest Wetlands Interpretive Association

Prepare final design and engineering plans and conduct environmental review for Goat Canyon Enhancement Project. Project involves construction of sediment retention basins and reconstruction of one mile of historic stream channel; exotics removal and riparian/mule fat scrub habitat restoration for approximately 100 acres.

A conceptual plan has been completed and agreements have been reached between partner agencies and organizations for the final phase of planning required to implement the project. Work includes hydrological, hydraulic, and sediment modeling to guide preparation of construction documents and preparation of state/federal environmental document, endangered species consultations, and permitting.

Status: The EIR/EIS has been finalized. Design plans and permits are in the final stage of preparation. The project is currently scheduled to begin construction in the Fall of 2002; however, several coordination requirements could potentially delay this schedule by a year.

Estimated cost:		$1,102,000
Funding:	SCC-Wetlands Recovery Project	$952,000
	U.S. Army Corps of Engineers	$150,000

Cost Notes: Past Planning -- $125,000 provided by the Coastal Conservancy, EPA, & California State Parks Department in 1998-1999 for Goat Canyon Enhancement Plan.

Last updated: 4/11/2002

2. Goat Canyon Enhancement Project

Date Funded: 1/02

Local Lead: Southwest Wetlands Interpretive Association

Construct sediment retention basins along the creek, reconstruct a portion of the historic Goat Canyon Creek stream channel, and restore riparian habitat in the project vicinity. The project will reduce sediment flows to the southern arm of Tijuana Estuary. Project construction will be restricted from September 15 to March 1 to protect the least Bell's vireo, and will be administered by California State Parks.

Goat Canyon Creek is the westernmost tributary to the Tijuana River and it flows through the south arm of the estuary. 90% of the Goat Canyon watershed is located in Mexico. The watershed is characterized by steep, highly erodible slopes; rapid development; and concrete-lined stream channels. These conditions contribute to high sediment loads in Goat Canyon Creek which are degrading the downstream estuary.

Status: The project is currently scheduled to begin construction in the Fall of 2002; however, several coordination requirements could potentially delay this schedule by a year.

Estimated cost:		$6,605,700

Funding:	SCC-Wetlands Recovery Project	$5,000,000
	California Department of Parks and Recreation	$1,200,000
	National Oceanographic and Atmospheric Admin.	$300,000
	City of San Diego	$105,700

Last updated:

3. Tijuana Estuary Tidal Restoration Program - Phase II

Date Funded: 4/01

Local Lead: Southwest Wetlands Interpretive Association

Prepare pre-preject feasibility and design studies for the next phase of the Tijuana Estuary (Friendship Marsh) Tidal Restoration Program (TETRP). The Conservancy and the Tijuana Estuary Management Authority are currently reviewing several options for the next phase of the restoration. Phase II will include selecting another 20-30 acre site within the 500-acre wetland area addressed in the TETRP and proceeding with a targeted restoration on this site. Phase II will also address some of the hydrologic issues identified in the TETRP as needing further examination. In addition, it would include preliminary restoration plans for the next few projects in the TETRP.

The Coastal Conservancy is creating a technical advisory committee to oversee development of the Phase II restoration plan to ensure that all interested agencies have early input into the planning process.

Status: The Technical Advisory Committee is refining the scope of work for this. Planning is expected to begin in Fall 2002 and to take 2 years.

Estimated cost:		$658,000
Funding:	SCC-Wetlands Recovery Project	$450,000
	U.S. Environmental Protection Agency	$208,000

Cost Notes: Cost estimate is preliminary.

Last updated: 4/1/2002

4. Tijuana River Valley Invasive Plant Control Program

Date Funded: 6/01

Local Lead: Southwest Wetlands Interpretive Association

Develop a watershed-wide Arundo control plan in the Tijuana River Valley, and implement the first phase of Arundo removal. With the support of public agency landowners, the program will eventually restore the entire Tijuana River Valley by treating hundreds of acres of Arundo. The first phase of the project would establish the interagency cooperation and implementation process and would remove approximately 10-15 acres of Arundo. The average cost of removal of the most dense Arundo thickets, and essential monitoring and followup is estimated at about $40,000/acre.

Arundo donax (giant reed) is an invasive non-native plant that has taken over a large portion of the Tijuana River Valley. The proposed eradication project will greatly enhance riparian habitat function and will protect the area from future degradation caused by continued expansion of Arundo. If nothing is done Arundo will continue to displace native vegetation until only degraded habitat remains. The Tijuana River Valley is designated as critical habitat by the Fish and Wildlife Service for two riparian wetland dependent endangered species: least Bell's vireo and southwestern willow flycatcher. Most of the Tijuana River Valley is now in public ownership of the Fish and Wildlife Service, California Dept. of Parks and Recreation, San Diego County Parks, and the City of San Diego.

Status: Project planning is underway beginning with mapping of exotic species. Imiplementation of specific exotics removal projects should begin in early 2003.

Estimated cost:		$560,000
Funding:	SCC-Wetlands Recovery Project	$500,000
	USFWS-Coastal Program Grant	$60,000

Cost Notes: Cost estimates are preliminary. USFWS funding would be for a part-time project manager for two years.

Last updated: 5/7/2002

5. Otay Mesa Vernal Pools Acquisition

Local Lead: County of San Diego

Acquire approximately 170 acres of vernal pool habitat on four parcels on the Otay River mesa. The parcels would eventually be added to the Otay Valley Regional Park and be monitored for biological integrity as part of the Park's management plan. The County of San Diego has already acquired a portion of vernal pool habitat in the northern part of the mesa. The listed vernal pools species recorded for the project area include San Diego button-celery, Little mousetail, Spreading navarretia, California Adder's tongue fern, Otay Mesa Mint and San Diego fairy shrimp. It is estimated that there has been a loss of 94 - 97% of the total number of vernal pools within San Diego County.

Otay Mesa is approximately 15 square miles in area stretching from I-805 on the west to the foothills of Otay Mountain to the east. The mesa stretches south across the international border into Mexico, where vernal pools also exist. The portion of the mesa on which the parcels are located forms a small triangular peninsula that is surrounded on the north and southwest by steep canyons, and the east by a State prison. These features have provided a buffer for the parcels that is atypical of other portions of the mesa.

Status: The WRP Work Plan recommends contributing approximately 10 percent of the funding for this acquisition. The County of San Diego is identifying additional funding sources to complete the project.

Estimated cost:		$4,500,000
Funding:	SCC-Wetlands Recovery Project	$500,000

Cost Notes: The County is pursuing additional federal, state and local funding.

Last updated: 4/9/2002

6. Famosa Slough Culvert Extension and Retrofit Design

Date Funded: 12/01

Local Lead: City of San Diego

Prepare feasibility study and design plans to reactivate an inoperable culvert between Famosa Channel and Famosa Slough to increase the tidal prism in the slough. Famosa Slough and Channel are currently connected by a 48-inch pipe culvert, and twin 4-foot by 6-foot box culverts. A second 48-inch culvert is inoperable because its south end is plugged with concrete, and the north end is buried under West Point Loma Blvd. Restoration of this culvert is the next priority identified in the 1993 Famosa Slough Enhancement Plan. The feasibility study to reactivate the culvert was completed in February 2001. The City is currently preparing final design and engineering plans for the project.

Reactivation of the culvert will improve tidal circulation in slough. Assuming an average of two additional horizontal feet in tidal inundation around the perimeter of the slough (excluding the northern channel), there will be an increase in wetlands of about 1/6 acre. Other projects identified in the enhancement plan are contingent on implementation of this project.

Status: The environmental review and final design stage should be completed by summer 2003. Construction is estimated to cost $40,000, and is expected to begin in late 2003.

Estimated cost:		$82,500
Funding:	SCC-Wetlands Recovery Project	$82,500

Cost Notes: Two previous projects have been implemented with local and federal funding, totaling approximately $540,000.

Last updated: 4/9/2002

7. Rose Creek Enhancement Plan

Local Lead: To be determined

Prepare final design and engineering plans for actions recommended in the Rose Creek Enhancement Plan. Recommended actions include:

1. Excavating saltmarsh channels south of Garnet Avenue Bridge
2. Hydraulic contouring of stream below Mission Bay Drive Bridge
3. Vegetating portions of the riprap and embankment toe above Grand Ave. Bridge
4. Low profile vegetated masonry structures on a portion of the concrete floor in the concrete channel above Mission Bay Drive Bridge
5. Hydraulic constructs of natural materials at southernmost end of concrete channel
6. Plantings of native trees and shrubs above concrete channel walls
7. Enhancement of pool impoundments and perched ponds
8. Removal of non-native trees and shrubs at selected riparian and upland sites
9. Revegetation of disturbed riparian and upland habitat
10. Pathways for scheduled maintenance and clean up, etc.
11. Viewing areas for interpretive activities and children's ecology education programs

The San Diego RWQCB included removal of concrete from lower Rose Creek as a high priority within the Federal fiscal year 2000 and 2001 requests for proposals for Clean Water Act Section 319(h) nonpoint source grants. Removal of hardscape will contribute to an increase in brackish water habitat and improve water purification functions.

Project partners include the City of San Diego, San Diego RWQCB, and the Nature School.

Status: The Conservancy has begun preliminary discussions with The Nature School regarding this project. Further project development is needed.

Estimated cost:		$60,000
Funding:	SCC-Wetlands Recovery Project	$60,000

Last updated: 4/11/2002

8. Los Penasquitos Hydrology Study

Date Funded: 9/01

Local Lead: Los Penasquitos Lagoon Foundation

Prepare a hydrology and sedimentation study for the Los Peñasquitos Watershed and Lagoon system to characterize the sources and amounts of increased sediment loads and freshwater flows into the lagoon. Increased sedimentation is primarily a result of extensive urbanization and industrial development in the western portion of the watershed. This study will provide a basis for the development of an updated Los Peñasquitos Lagoon Enhancement Program. The study will organize existing information from all sources, including current water quality and flow monitoring data related to development in the watershed as well as within the lagoon itself. It will evaluate current measures required or planned to control sedimentation and excess flows, identify data gaps, collect additional information needed and suggest alternatives for future restoration and enhancement efforts in the lagoon and watershed.

Status: The study should be completed in late 2003. There is approximately $1 million in funding from Proposition 13 to implement this project.

Estimated cost:		$250,000
Funding:	SCC-Wetlands Recovery Project	$250,000

Cost Notes: Some funding may also be available from in-lieu mitigation fund.

Last updated: 5/7/2002

San Elijo Lagoon Enhancement Program

- San Elijo Lagoon Acquisition Program
- San Elijo Lagoon Non-native Plant Management

9. San Elijo Lagoon Non-native Plant Management

Date Funded: 10/01

Local Lead: San Elijo Lagoon Conservancy

The project will develop and implement a comprehensive removal and management plan for non-native, invasive plants found in the wetland and riparian habitats within the San Elijo Lagoon Ecological Reserve. The invasive plant management program will be carried out in several phases. SELC will map existing plant communities around the lagoon, including the species composition and distribution of non-native, invasive species. SELC has already completed preliminary mapping for several species. SELC will then prioritize species and develop a removal strategy for each species based on its location within the habitat, life cycle and dispersal mechanisms, nearby sensitive re-sources, and effective treatment methods. The removal plans will then be implemented, followed by a five year monitoring and maintenance program. The proposed project also includes surveying San Elijo Lagoon for Caulerpa taxifolia, a highly invasive exotic algae that was found nearby in Agua Hedionda Lagoon in 2000.

Status: Funding for the San Elijo Lagoon Non-native Plant Management program was approved at the Conservancy's October 2001 meeting. Project should be completed by Fall 2003.

Estimated cost:		$292,270
Funding:	SCC-Wetlands Recovery Project	$223,063
	County of San Diego - in-kind	$32,687
	San Elijo Lagoon Conservancy - in kind	$36,520

Last updated: 4/10/2002

10. San Elijo Lagoon Acquisition Program

Date Funded: 6/01

Local Lead: San Elijo Lagoon Conservancy

Acquire up to 100 acres of property along the margins of San Elijo Lagoon. Several properties have been identified as high priorities for addition to the San Elijo Lagoon Reserve. These parcels would provide riparian habitat and upland buffers. Some parcels have opportunities for constructing polishing wetlands to improve the quality of water entering the lagoon. Property would be held by either the County or the San Elijo Lagoon Conservancy. Approximately 32 acres have already been acquired by the Lagoon Conservancy for $1.4 million.

The next parcel expected to be acquired is the Manchester Property, an 18.9 acre parcel near the intersection of Manchester Avenue and El Camino Real. The property includes a portion of the seasonally intermittent Lux Creek and provides an opportunity for creating a freshwater polishing wetland. Acquisition costs are estimated at $1.8 million. The property would be acquired by the County of San Diego, with funding from the County, WRP, and U.S. Fish and Wildlife Service.

Status: Negotiations for acquisition of the Manchester Property are in the final stages. Acquisition should be complete in Summer 2002.

Estimated cost:		$4,717,000
Funding:	SCC-Wetlands Recovery Project	$2,000,000
	U.S. Fish and Wildlife Service	$650,000
	County of San Diego	$667,000
	San Elijo Lagoon Conservancy - Ford Foundation	$1,400,000

Cost Notes: Estimated cost of the Manchester Property is $1.8 million. Funding includes: USFWS - $650K; WRP - $483K, and County of San Diego - $667K.

Last updated: 4/10/2002

11. Escondido Creek Watershed Restoration Action Strategy

Local Lead: San Elijo Lagoon Conservancy

Prepare an integrated Watershed Restoration Action Strategy (WRAS) for overall management and restoration of the Escondido Creek watershed, the drainage for San Elijo Lagoon. In 2002, a watershed management plan was completed for the Carlsbad Hydrologic Unit, which includes Escondido Creek. This plan provides a system level description of the overall watershed drainage group of seven watersheds, and recommends that individual watershed management plans be prepared with specificity at the subwatershed level.

In developing the WRAS, the Lagoon Conservancy will: perform a field survey of existing conditions and problems in the watershed; identify specific watershed management goals and objectives; compile a master list of acquisition, restoration, and enhancement projects to address these problems; prioritize projects based on goals and objectives; and develop project descriptions for approximately 30 high priority, "ready to go" projects in the watershed.

Status: New Project

Estimated cost:		$328,900
Funding:	SCC-Wetlands Recovery Project	$250,000
	County of San Diego	$30,000

Cost Notes: $299K was requested from WRP.

Last updated: 4/17/2002

12. Escondido Creek Restoration - Bumann Site

Local Lead: Escondido Creek Conservancy

Remove invasive species and revegetate approximately 1.6 acres along 750 feet of Escondido Creek, a tributary to San Elijo Lagoon. A population of southwestern pond turtles inhabit the site. The project site is heavily infested with many exotic species, most notably Arundo donax. Other weedy, invasive species found within and/or adjacent to the riparian areas are eucalyptus trees, Canary Island date palm, fan palm, fennel and cocklebur. The project entails the planning, permitting, implementation and monitoring for the removal of invasive exotic plant species.

Status: The WRP has not begun work on this project due to limited staff resources. The Coastal Conservancy will begin work on remaining projects as quickly as possible.

Estimated cost:		$235,510
Funding:	SCC-Wetlands Recovery Project	$220,770
	Escondido Creek Conservancy	$14,740

Cost Notes: Costs estimates are preliminary.

Last updated: 4/9/2002

13. ESD Park Riparian Restoration (Cottonwood Creek)

Local Lead: City of Encinitas

Recreate portions of riparian stream corridor on Cottonwood and Moonlight Creeks, in northern San Diego County. The project would be located on a 18.9 acre park in the City of Encinitas. Approximately half of the park would be used for habitat restoration and passive recreation. The project involves daylighting a portion of Cottonwood Creek and vegetating Cottonwood and Moonlight Creeks with riparian species. The project will recreate approximately 2.4 acres of riparian habitat along 1150 feet of stream corridor. High storm flows would be diverted into the existing stormwater system to protect the restored corridor. The project is expected to improve water quality

of low-flows in the creek. The project provides excellent opportunities for education about water quality issues, watershed protection, and riparian systems.

Status: Project is in final design stages. The City hopes to complete construction by the end of 2002.

Estimated cost:		$272,500
Funding:	SCC-Wetlands Recovery Project	$136,250
	City of Encinitas	$136,250

Last updated: 4/9/2002

14. Batiquitos Lagoon Saxony Property Acquisition

Local Lead: City of Encinitas

Acquire 10 acres of upland and riparian habitat adjacent to Batiquitos Lagoon and prepare a restoration plan for the property. The site is located on the south side of the lagoon, east of I-5, and runs parallell to Saxony Road. La Costa Avenue runs between the property and Batiquitos Lagoon. A highly degraded, intermittent stream runs the length of the property. The property contains Diegan Coastal Sage Scrub, Southern Mixed Chaparral, Southern Willow Riparian Scrub, Native Grassland, and Non-native Grassland habitats and is utilized by several sensitive species, including the federally threatened California Gnatcatcher and the federally endangered Least Bell's Vireo. The site is contiguous to approximately 340 acres of existing biological open space within the City of Encinitas MHCP Focused Planning Area.

Status: New Project

Estimated cost:		$1,200,000
Funding:	SCC-Wetlands Recovery Project	$200,000
	TEA grant	$880,000
	City of Encinitas	$120,000

Cost Notes: $50,000 of the WRP funds would be used to prepare a restoration plan for the property.

Last updated: 5/7/2002

15. Batiquitos Lagoon Exotics Removal and Revegetation

Local Lead: Batiquitos Lagoon Foundation

Develop detailed plans for removing exotics and revegetating approximately 16 acres of wetland and upland habitat adjacent to Batiquitos Lagoon. The 1997 Conceptual Planning Study for the lagoon examined conservation and education opportunities and constraints that existed on the shore of the lagoon. The concept study divided the lagoon into 12 planning areas and concluded that invasive non-native plant species were the single greatest threat to habitat quality in and around the lagoon. The Batiquitos Lagoon Foundation has prioritized the magnitude of the threat to each planning area based on the size of the invasive occupied area, accessibility of the occupied area, and location in the lagoon.

This project will prepare the detailed plans, permits, and environmental review to remove exotics and revegetate the 5 highest priority areas arounds the lagoon. Implementation of the project is expected to be funded, at least in part, with funds from the Carlsbad Agricultural Mitigation Fund.

Status: New Project

Estimated cost:		$160,000
Funding:	SCC-Wetlands Recovery Project	$150,000
	Batiquitos Lagoon Foundation	$10,000

Last updated: 4/17/2002

16. Caulerpa Taxifolia Eradication Program

Local Lead: Agua Hedionda Lagoon Foundation

Survey for, identify and treat infestations of Caulerpa taxifolia in Agua Hedionda Lagoon to achieve full eradication. In June 2000, biologists conducting an eelgrass monitoring program discovered Caulerpa taxifolia, a highly invasive non-native marine algae growing in the Snug Harbor area of the Inner basin of the Lagoon. The presence of Caulerpa taxifolia in Southern California represents a significant threat to the wetland and fishery resources along the entire coast of California. If Caulerpa taxifolia spreads to the Pacific Ocean, all coastal wetland ecosystems will potentially be at risk from this highly invasive tropical algae. However, the opportunity to achieve full eradication still exists.

Since discovering Caulerpa in Agua Hedionda Lagoon, a multi-agency team has been aggressively treating the algae by tarping infested areas and injecting chlorine beneath the tarps. It is currently estimated that this program will need to continue until at least 2007. The project involves year-round monitoring of the lagoon for new infestations, treatment of current and new infestations, and public outreach and education to reduce the potential for future infestations.

Status: New Project

Estimated cost:		$6,000,000
Funding:	SCC-Wetlands Recovery Project	$1,000,000

Cost Notes: Federal, state, local, and private partners contributed funding to the first two years of eradication efforts. Funds are now be secured for the next five years.

Last updated: 4/17/2002

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17. Buena Vista Lagoon Restoration Plan

Date Funded: 2/01

Local Lead: Buena Vista Lagoon Foundation

Evaluate enhancement options for Buena Vista Lagoon, including the feasibility of establishing tidal flushing within the lagoon. The design and feasibility of future restoration and management projects requires data on the present conditions within the lagoon, and the ability to model possible enhancements including different combinations of dredging, spoils disposal, and structural modifications at critical points such as the I-5 crossing, Coast Highway/Carlsbad Boulevard crossing, the Santa Fe Railroad trestle, and the weir at the lagoon mouth. Possible options would be analyzed for cost-effectiveness in removing sediments and re-establishing habitat values in the lagoon, and would provide the basis for development of a long-term enhancement and maintenance plan for the lagoon.

Project partners include the San Diego RWQCB and the Buena Vista Lagoon Foundation. Project expected to begin in fall 2000. There is currently a $100,000 monitoring project being undertaken by CDFG. Plans also under consideration which could affect the lagoon include widening Carlsbad Avenue, as well as double-tracking the railroad.

Status: Technical Advisory Team is reviewing consultant proposals. Study is expected to begin in Summer 2002 and will take approximately one year to complete.

Estimated cost:		$623,000
Funding:	SCC-Wetlands Recovery Project	$200,000
	San Diego RWQCB	$50,000
	Dept. of Fish and Game	$10,000
	Buena Vista Lagoon Foundation	$130,000
	Carlsbad Agricultural Mitigation Funds	$233,000

Last updated: 5/8/2002

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18. Buena Vista Creek Acquisition, Sherman Parcel

Local Lead: County of San Diego

Acquire approximately 133.8 acres of land along Buena Vista Creek. The property is located approximately 1 mile upstream of Buena Vista Lagoon and includes approximately 70 acres of riparian habitat and 3200 feet of stream corridor. The property is in a proposed Multiple Habitat Conservation Planning area. SANDAG has prepared a Conceptual Area Protection Plan for their MHCP that includes acquisition of this property as a priority. The primary vegetation type in the creek bottom is Willow riparian habitat, with disturbed Coastal sage scrub and nonnative grassland habitats in the upland areas.

Status: Coastal Conservancy staff is performing a more detailed analysis of the resource value of this parcel in order to make a recommendation on the proportional share of the acquisition cost that the WRP should provide. The Conservancy is also investigating the possibility of coupling this acquisition with acquisition by the County of other parcels in the vicinity.

Estimated cost:		$4,400,000
Funding:	SCC-Wetlands Recovery Project	$750,000
	California Dept. of Fish and Game (HCF)	$200,000

Cost Notes: County is pursuing funding from the Wildlife Conservation Board (Prop 12), State Water Board (Prop 13). Requested $2,000,000 from WRP.

Last updated: 4/11/2002

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19. San Luis Rey River Arundo Removal

Local Lead: Mission Resource Conservation District

Remove Arundo donax from over 450 acres along the San Luis Rey River and its tributaries, working from the top of the watershed down. The San Luis Rey River watershed is 359,000 acres, originating in the Palomar Mountains and reaching the ocean at the City of Oceanside. The river is designated as critical habitat by the Fish and Wildlife Service for three endangered species: least Bell's vireo, the southwestern willow flycatcher, and the arroyo southwestern toad. The San Luis Rey River supports the largest population of southwestern willow flycatchers in the State and the second largest population of least Bell's vireos in San Diego County. The river contains several areas with the potential to support more wildlife, if the sources of habitat degradation are removed. Arundo infestations have lowered habitat quality along many stretches of the river.

The project is a comprehensive, watershed-based effort to restore the river. It is expected that WRP funds would be used for a specific portion of this effort -- the control of up to 83 acres of Arundo along 2.7 miles of the San Luis Rey River. Least Bell's vireo, the southwestern willow flycatcher, and the arroyo southwestern toad currently use the project site and have the potential to increase in abundance if the habitat is restored.

Status: New Project

Estimated cost:		$6,420,600
Funding:	SCC-Wetlands Recovery Project	$642,000
	SWRCB -- Prop. 13 grant	$750,000
	Caltrans -- EEMP grants	$500,000
	California Dept. of Water Resources	$309,100
	National Fish and Wildlife Foundation	$9,966
	Bureau of Land Management	$295,000
	U.S. Army Corps of Engineers	$3,390,000
	Local Gov't Funds	$49,400
	Private funds	$14,134

Last updated: 4/16/2002

20. Wood Canyon Stream Stabilization and Restoration

Local Lead: County of Orange

Restore degraded riparian habitat along approximately 3.5 miles of Wood Canyon Creek and its tributaries. Wood Canyon Creek is a tributary to Aliso Creek. The project consists of three main elements: 1) modification of an existing detention basin at the upstream boundary of the Wilderness Park which is contributing to erosion in Wood Canyon; 2) re-routing and revegetating a approximately 2.75 miles of a tributary stream; and 3) removal of non-native species. In addition to habitat benefits, the project will provide water quality benefits by increasing the capability of Wood Canyon Creek to filter non-point source pollution.

Wood Canyon is characterized by its rugged hillsides, oak woodlands, freshwater marshes, riparian corridors and abundant wildlife. The proposed restoration encompasses Wood Canyon Creek and its lower order tributaries from its origin in the northern section of the Aliso and Wood Canyons Wilderness Park to its confluence with Aliso Creek.

The impacts of the surrounding communities have increased inputs of urban runoff and stormwater into Wood Canyon over the past thirty years. This project will address restoration of those areas of the canyon that show early detrimental effects from erosion and resulting sediment loading of the downstream areas in Aliso Creek, the inferred loss of macro-invertebrate species that act as biological health measures due to high water temperatures and pollutants such as nutrients and bacteria, and the loss of native riparian plant species that naturally filter stream water from pollutants while shading and cooling the stream.

Status: The ACOE's preliminary draft Baseline Conditions Report was completed in January 2002. The ACOE expects to begin the final design and construction phase in December 2002. WRP funding will not be needed until then.

Estimated cost:		$1,500,000
Funding:	SCC-Wetlands Recovery Project	$300,000

Cost Notes: Project is eligible for a 65% ACOE match, which is available through the LA District. WRP would fund approximately 30%, and County would provide remaining 5%.

Last updated: 4/9/2002

21. Aliso Creek Dairy Fork Biofiltration Basin

Local Lead: County of Orange

Create a vegetated water quality treatment system and riparian corridor on a reach of Dairy Fork, a tributary to Aliso Creek. The treatment system will consist of a series of three flow-through biofilters constructed of large rock, which will serve to slow down and filter the water in Dairy Fork. The margins of the low flow channel will be vegetated with emergent marsh vegetation (sedges, rushes, cattails) and a 100 foot wide buffer will be revegetated with native trees and shrubs (willows, alders, cottonwood, mulefat, etc.). The wetland and riparian vegetation may further reduce nutrient, bacteria and sediment loading as well as providing shade to directly reduce temperatures. The project will also create pools of acceptable depth, extent and substrate to provide habitat for the Southwestern Pond Turtle.

The San Diego RWQCB has identified the Aliso Creek watershed as a target watershed for priority water quality enhancement efforts. Of particular concern are the issues of the quality of aquatic and riparian habitat, channel stability and public health. Dairy Fork exhibited elevated fecal coliform concentrations and high temperatures and may be a significant contributor of bacteria to Aliso Creek.

Status: The County has begun work on the final plans and specifications for this project. The environmental review document is being prepared and will be released to the public in spring 2002. The construction bid package should be released in summer 2002.

Estimated cost:		$430,000
Funding:	SCC-Wetlands Recovery Project	$215,000
	County of Orange	$215,000

Cost Notes: Additional funding may be needed for oversight during the project by a archaeologist/paleontologist due to possible Native American remains on the site.

Last updated: 4/8/2002

22. Serrano Creek Stabilization and Restoration

Date Funded: 1/02

Local Lead: County of Orange

Stabilize and restore approximately 1.1 miles of Serrano Creek, a tributary to San Diego Creek and Upper Newport Bay. Serrano Creek has suffered severe bank erosion and channel incision and is a significant source of sediment loading to Upper Newport Bay. The project will stabilize Serrano Creek through construction of rock grade stabilization structures, rock bank slope protection, bendway weirs, and extensive replanting of the creek edges and bank. Three types of habitat will be planted as part of the project. Riparian habitat will be planted at the base of creek banks and will be dominated by willow species. A transitional zone of plants will be planted between the 10 and 50-year flood plains. Cottonwoods and sycamores will dominate this habitat. Oak woodland will be planted above the 50-year flood plain. Coast Live Oaks will dominate this habitat. The project evolved out of a multi-year planning process among the City of Lake Forest, County of Orange, and the Serrano Creek Conservancy. The planning process had significant involvement from the local community, including several community workshops. The project is designed to balance flood management, habitat, and recreation objectives.

Status: Construction on the Serrano Creek Stabilization and Restoration project is expected to begin in Summer 2002 and should be completed within a year.

Estimated cost:		$2,578,000
Funding:	SCC-Wetlands Recovery Project	$500,000
	City of Lake Forest - state grant	$182,451
	County of Orange - state grants	$639,043
	Serrano Creek Conservancy - Urban Strm Rest. Grant	$144,758
	County of Orange - FEMA grant	$347,061
	City of Lake Forest	$400,000
	County of Orange FCD	$584,597

Last updated: 4/11/2002

23. Serrano Creek Exotics Removal

Local Lead: County of Orange

Remove invasive non-native plants from approximately two miles of Serrano Creek between Lake Forest Dr. and Bake Parkway. Serrano Creek is the principal tributary to San Diego Creek, the primary drainage to Upper Newport Bay. Natural communities that can be found along the creek include mature sycamore/willow woodlands, mature oak woodland, mule fat scrub and coastal sage scrub. The endangered California Gnatcatcher breeds along Serrano Creek. The creek also provides potential habitat for future use by the Southwestern Willow Flycatcher and the Least Bell's Vireo. The project will increase habitat for native species, retain ground water for use by native vegetation, help eliminate some flood control problems, and reduce the threat of exotic species spreading further in the watershed.

Several non-native invasive species will be removed along the creek channel, including Arundo, artichoke thistle, castor bean, tree tobacco and pampas grass. Volunteers will be used to remove exotics that are easily reached from the trail.

Status: New Project

Estimated cost:		$227,650
Funding:	SCC-Wetlands Recovery Project	$58,000
	Serrano Creek Conservancy	$52,050
	Dept. of Water Resources - Urban Streams Grant	$57,800
	County of Orange	$60,000

Last updated: 4/18/2002

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24. San Joaquin Marsh Enhancement - Phase II, Feasibility Study

Date Funded: 1/02

Local Lead: University of California, Irvine

Prepare a feasibility study, conduct environmental review, consult with permitting agencies, and prepare final construction designs and contract documents for Phase II of San Joaquin Marsh Reserve restoration. The 1997 Revised San Joaquin Marsh Enhancement Plan recommended that restoration of the marsh proceed in two phases. Phase I, which was completed in January 2000, encompassed enhancement of seasonal ponds and restoration of coastal sage scrub habitat. Phase II will focus on enhancement of the approximately 120 acres of perennial marsh.

The feasibility study will evaluate alternatives to increase and maintain open water areas within the perennial marsh. Historically, the perennial marsh contained open water areas and channels. The extent and depth of the open water areas has significantly decreased due to gradual accumulation of sediment and organic matter and subsequent encroachment of cattails. Except for a few remaining open water areas, the marsh has become predominantly a monoculture of cattails. Consequently, the loss of open water habitat has reduced the diversity of wildlife species that the San Joaquin Marsh Reserve supports

Status: Preparation of the Feasibility Study is underway. Final design plans, environmental review, and permit applications should be complete by December 2003.

Estimated cost:		$345,136
Funding:	SCC-Wetlands Recovery Project	$330,000
	U.C. Irvine (in-kind services)	$15,136

Cost Notes: The preliminary cost estimate for implementation is $2.5 million. No implementation funding has been identified yet.

Last updated: 4/10/2002

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25. Upper Newport Bay Ecological Restoration, Final Design Plans

Date Funded: 8/01

Local Lead: County of Orange

Prepare final design and engineering plans for ACOE ecological restoration project that will dredge 2.1 million cubic yards of sediment from Upper Newport Bay. The Ecosystem Restoration Project involves deepening both the Unit I/III and Unit II sediment basins (Exhibit 1) in the upper bay to -20 feet below mean sea level. This will remove approximately 2.1 million cubic yards of sediment from the bay. The sediment will be disposed of offshore at an approved EPA disposal site. The project also includes an ongoing maintenance dredging program that will be undertaken approximately every 21 years. In addition to the proposed dredging program, the project includes several enhancements to existing habitat areas. These include dredging channels to promote tidal circulation and limit predator access to sensitive areas and expanding mudflat habitat in several locations to compensate for mudflats lost to dredging.

The Ecosystem Restoration Project would result in the net gain of approximately 42 acres of open water habitat and the net loss of approximately 39 acres of mudflat habitat. The Feasibility Study estimates that without the proposed project, 171 acres of open water habitat would be lost over the next 50 years. The Ecosystem Restoration Project is one of several ongoing efforts in the bay and

San Diego Creek watershed to reduce sedimentation in the bay.

Status: The ACOE has begun preparation of the final design and engineering plans. Construction is expected to begin in the federal fiscal year 2004.

Estimated cost:		$2,000,000
Funding:	Coastal Conservancy -- Prop 12	$1,000,000
	U.S. Army Corps of Engineers	$1,000,000

Cost Notes: The Coastal Conservancy has approved $500,000 for this project to date. Proposition 12 allocated up to $13 million for projects at Upper Newport Bay. It is expected that these funds will be used to fund the local share of the project.

Last updated: 3/6/2002

26. Big Canyon Creek Restoration Project

Local Lead: Community Conservancy International

Prepare restoration plan for Big Canyon Creek, a tributary to Upper Newport Bay. The plan will address wetland habitat, water quality, drainage and hydrologic issues, storm drain problems, tidal exchange needs, sedimentation, long-term system sustainability, and public access. The plan will evaluate the restoration potential of several habitat types, including tidal channels, mudflats, salt marsh, freshwater and brackish water marsh. The plan will also make recommendations for addressing drainage problems and water quality contamination from Big Canyon Country Club, golf course, bluffside homes and impervious urban watershed area. The final document will include plans for detailed drainage improvements, dredging, revegetation, restoration of wetlands and related habitats, re-creation of tidal exchange, public access and trail construction.

Big Canyon Creek drains a two square mile, heavily urbanized watershed directly into Upper Newport Bay. The project area consists of 45 acres of coastal sage scrub, riparian woodland and freshwater marsh, with heavy stands of non-native plants. Endangered species that use the site include the plant Salt Marsh Bird's Beak, and the California Gnatcatcher, Belding's Savannah Sparrow, California Brown Pelican, and possibly Least Terns. Big Canyon was once a functioning complex of wetland and upland habitats, including estuarine, marine mudflats, brackish and fresh water marsh, riparian woodland, coastal sage scrub and marine tidal channels. However, repeated flooding events, particularly during the 1997 El Nino storms, have caused enormous damage to Big Canyon, destroying habitat and public access. Flooding, sedimentation and choked downstream drainages have reduced the extent and quality of wetlands habitat.

Status: New Project

Estimated cost:		$250,000
Funding:	SCC-Wetlands Recovery Project	$100,000
	California Dept. of Fish and Game (in-kind)	$37,000
	City of Newport Beach	$96,700
	Community Conservancy International (in-kind)	$17,000

Cost Notes: Original budget estimate was $429,000, with $268,300 requested from WRP.

Last updated: 4/18/2002

Huntington Beach Wetlands Program

- Talbert Marsh Tidal Channel Enhancement Design
- Huntington Beach Acquisitions

27. Talbert Marsh Tidal Channel Enhancement Design

Local Lead: Huntington Beach Wetlands Conservancy

Prepare plan to enhance tidal exchange into the 25-acre Talbert Marsh. Talbert Marsh was restored in 1989 with funding from the Coastal Conservancy. The final monitoring report from this restoration project made several recommendations to improve the viability of the marsh, including removal of accumulated silt from the main flood channel and tidal creeks. The project will include surveying the marsh and developing a current topographic map, comparing this to the original design contours, and determining the amount of material accumulated in the channels. Preliminary sediment testing will be done to determine options for disposal. The project will be coordinated with the County of Orange which maintains the ocean inlet.

Status: The Coastal Conservancy is working with the County and the Huntington Beach Wetlands Conservancy (HBWC) to revise and refine the scope of work for this project. This project will be funded with monies already granted to the HBWC.The study should begin in Summer 2002.

Estimated cost:		$80,000
Funding:	SCC-Wetlands Recovery Project	$50,000

Cost Notes: Cost estimate is preliminary.

Last updated: 4/12/2002

28. Huntington Beach Acquisitions

Local Lead: Huntington Beach Wetlands Conservancy

Acquire from willing sellers properties in private ownership within the Huntington Beach Wetlands complex. The Huntington Beach Wetlands encompass 140 acres, approximately 37 of which are in conservation ownership. Of these, only 17 acres of which have been restored. The remaining areas of the Huntington Beach wetlands support degraded, non-tidal salt marsh. Potential properties for acquisition include:

1. Coastal Magnolia properties. 45-acres divided into a 35-acre and 10-acre parcel divided by Magnolia Street. The parcels are owned by the Estate of Daisy Piccirelli which has declared bankruptcy; however, the title to these two parcels is extremely clouded. The Conservancy prepared an appraisal in 1999, and made an offer to the trustee of the bankruptcy court, contingent on the title being cleared. The trustee is evaluating all of the offers received on the property.

2. West of Magnolia property. 16-acre parcel located between the southern Coastal Magnolia parcel and Pacific Coast Highway. This parcel is owned by the University of California, which received it through a donation. The Conservancy prepared an appraisal for this property in 1999. The Conservancy has had preliminary discussions with U.C. about acquiring the parcel.

Status: The Coastal Conservancy is currently preparing a new appraisal for the Coastal Magnolia property to address concerns raised by the landowner and the Conservancy about two earlier appraisals. The appraisal should be complete by June 2002, at which point the Conservancy will consider making an updated offer. The Huntington Beach Wetlands Conservancy has approached the University of California about acquisition of the remaining parcel.

Estimated cost:		$5,000,000
Funding:	SCC-Wetlands Recovery Project	$2,000,000

Last updated: 4/12/2002

29. Bolsa Chica Wetlands Restoration

Local Lead: Steering committee of 8 federal and state agencies.

Restore and enhance approximately 367 acres to full tidal influence, improve muted tidal circulation to 200 acres, retain 120 acres of seasonal pond habitat, and reserve 252 acres for future full tidal restoration when oil field operations terminate in 15-20 years. Most of the affected area has been isolated from tidal action since approximately 1900 and has been used for oil production for 65

years or so. Project elements include buying out certain oil production facilities, recreating a tidal channel and stabilizing it with short jetties, pre-filling an offshore sandbar and augmenting the volume of beach sand, dredging a tidal basin, bolstering perimeter levees, installing a French drain and pump system, forming upland islands, improving culverts between new tidal basin and muted tidal area, building a bridge on Pacific Coast Highway (including pedestrian and bicycle lanes separate from vehicle traffic lanes) and an oil field access bridge to span the new tidal channel, and setting aside an endowment for operation and maintenance. The tidal channel and bridge will be built to serve both the 367-acre tidal wetland restoration and the additional 252 acres that will eventually be opened to tidal action after oil operations cease. Remediation and abandonment of oil facilities in the initial restoration area is being accomplished principally by responsible private parties, but is being planned in coordination with habitat restoration.

The Bolsa Chica wetlands are located in Orange County, surrounded by the City of Huntington Beach. The project site lies adjacent to the Department of Fish and Game's Ecological Reserve and consists of 350 acres of habitat within 1300 acres of lowlands, most of which the State owns. Partially-developed mesas rise at both the upcoast and downcoast ends of the lowlands. The 1300 acres of lowlands are a remnant of a complex of approximately 2500 acres of streams and wetlands that has been reduced in size and degraded by agricultural and urban development and by construction of flood management channels oil extraction facilities

Status: New Project

Estimated cost:		$90,000,000
Funding:	SCC-Wetlands Recovery Project	$20,000,000
	U.S. Fish and Wildlife Service (seeking)	$11,000,000
	Ports of Long Beach and Los Angeles	$53,000,000

Cost Notes: The Ports money is held by State Lands Commission in an interest-bearing account. Precise amount available for project largely dependent upon amount of interest accrued by start date for construction. WRP funding is dependent upon future appropriations by Legislature. USFWS funding is dependent upon future appropriations by Congress.

Last updated: 5/8/2002

30. East Garden Grove Wintersburg Channel Treatment Wetland

Local Lead: City of Huntington Beach

Prepare a feasibility study for diverting up to six million gallons per day from the East Garden Grove Wintersburg Channel (EEGWC) into treatment wetlands in Hungtington Beach Central Park. Water would be drawn from the EEGWC and would flow through three small lakes located in Central Park. Much of the water would be lost to either evapotranspiration or infiltration, but remaining flows would be returned to the EEGWC. The project would have multiple objectives including improved water quality, increased wildlife habitat, and enhanced recreational opportunities. A key issue in the project design will be balancing concerns about water quality and habitat quality.

Status: New Project

Estimated cost:		$390,000
Funding:	SCC-Wetlands Recovery Project	$80,000
	City of Huntington Beach - Prop 13 SWRCB grant	$310,000

Cost Notes: The preliminary cost estimate for implementation is $3.5 million. The City of Huntington Beach has applied for a Prop. 13 grant from the State Water Board to fund 80% of the project costs. The remaining 20% was requested from the WRP.

Last updated: 4/18/2002

Los Cerritos Wetlands Program

- Hellman Ranch Acquisition (Los Cerritos)
- Bryant Acquisition (Los Cerritos)
- Los Cerritos Wetlands Conceptual Restoration Plan
- Bixby Ranch Company Acquisition (Los Cerritos)

32. Hellman Ranch Acquisition (Los Cerritos)

Local Lead: Wildlife Conservation Board

Acquire approximately 100 acres of the Los Cerritos Wetlands located on the Hellman Ranch property. The Hellman property lies south of the San Gabriel River in the City of Seal Beach. Under a settlement agreement between the owners, the Coastal Commission, and a group of environmental organizations, the owners must offer this area for sale to a public entity. The landowners prefer that the Wildlife Conservation Board take the lead in negotiating this acquisition.

Acquisition of the Bixby and Bryant properties in the Los Cerritos Wetlands are also included on the WRP Work Plan.

Status: The property appraisal was completed in Summer 2001. The Wildlife Conservation Board is negotiating a purchase agreement with the landowners. Acquisition is expected to be completed in Summer 2002.

Estimated cost: Confidential

Funding: Wildlife Conservation Board

Cost Notes: Project is expected to be funded by WCB.

Last updated: 4/11/2002

33. Bryant Acquisition (Los Cerritos)

Local Lead: Trust for Public Land

Acquire the 85-acre Bryant property, a portion of the Los Cerritos Wetlands. The Bryant property is located between the Hellman and Bixby properties in the City of Long Beach. A portion of the Bryant property straddles the San Gabriel River channel.

Acquisition of the Bixby and Hellman properties in the Los Cerritos Wetlands is also included on the WRP Work Plan.

Status: The Trust for Public Land is taking the lead on the negotiations for acquisition of the Bryant Ranch. The property appraisal is complete.

Estimated cost: Confidential

Funding: SCC-Wetlands Recovery Project $1,000,000

Last updated: 4/11/2002

34. Bixby Ranch Company Acquisition (Los Cerritos)

Local Lead: Trust for Public Land

Acquire the 181-acre Bixby Ranch portion of the Los Cerritos Wetlands complex. The Coastal Conservancy had an option to purchase the property, but it expired in December 2000. Negotiations for acquisition continue. Key issues include relocation of the oil operations and site clean-up.

The Bixby Ranch is located in the City of Long Beach, northwest of the San Gabriel River, near the mouth of the river. Los Cerritos Channel, a tidal channel, crosses through the northern part of the property. Westminster Avenue divides the property into two parcels with about 80% of the land located north of Westminster.

Acquisition of the Hellman and Bryant properties in the Los Cerritos Wetlands is also included in the Work Plan.

Status: The Trust for Public Land is taking the lead on the negotiations for acquisition of the Bixby Ranch. There are several significant issues that need to be resolved.

Estimated cost: Confidential

Funding: SCC-Wetlands Recovery Project $14,000,000

Cost Notes: Acquisition costs for the entire Los Cerritos complex are estimated at $25 million. In June 2001, the Conservancy approved $11.4 million in funding for "Los Cerritos" wetlands acquisitions; this funding requires an $11 million match of non-state funds.

Last updated: 4/11/2002

35. Los Cerritos Wetlands Conceptual Restoration Plan

Local Lead: Coastal Conservancy

Prepare conceptual restoration plan for the Los Cerritos Wetlands. Project would include an assessment of existing resources, hydrologic analysis, identification of opportunities and constraints, an evaluation of alternatives for expanding tidal circulation and restoring fresh and brackish water wetlands. A recommended conceptual restoration plan will then be prepared. Preparation of the conceptual plan is contingent upon adequate access to property and cooperation of private and public property owners.

Planning will initially focus on the Hellman property and adjacent properties including the Los Alamitos Pump Station flood control basin. Restoration planning for the Bixby and Bryant properties will commence when acquisition of these properties is complete, or nearly complete.

Status: The Coastal Conservancy has begun discussion of the scope of work for a preliminary phase of restoration planning on the Hellman property and adjacent publicly-owned lands. Work on the preliminary study should begin in Fall 2002 and will take approximately one year to complete.

Estimated cost: $500,000

Funding: SCC-Wetlands Recovery Project $500,000

Last updated: 4/11/2002

31. Coyote Creek Watershed Plan

Local Lead: County of Orange

Prepare Watershed Management Plan for Coyote Creek, a tributary to the San Gabriel River. The project will be done in partnership with the Army Corps of Engineers, the counties of Orange and Los Angeles, and several cities. WRP funds will be targeted to characterizing wetlands resources in the watershed and identifying potential wetlands enhancement and restoration projects. Other areas of technical study for the 147 square mile watershed will include surveying and mapping, hydrology and water quality, hydraulics, geomorphology and sedimentation, social and economic issues, flooding and erosion damage, recreation analysis, environmental and cultural resources, geotechnical considerations and regulatory requirements. A portion of WRP funds will also be used to implement an outreach program to increase the diversity of stakeholders participating in the planning process.

Existing problems in the Coyote Creek Watershed include: excessive nutrient loading in the San Gabriel River, aquatic life toxicity from stormwater runoff, loss of native habitats and their associated species, introduction of nonnative species, loss of wildlife corridors, erosion and downcutting of streams, and bioaccumulation of toxic compounds in the food web.

Status: The County of Orange and the ACOE are finalizing the project scope and local cost-

share agreement. WRP funds will be needed by Fall 2002.

Estimated cost:		$2,000,000
Funding:	SCC-Wetlands Recovery Project	$130,000
	U.S. Army Corps of Engineers	$1,000,000

Cost Notes: The County has also applied for a Prop 13 grant. Several cities and 2 counties will also probably contribute. $200,000 in WRP funds were requested.

Last updated: 4/11/2002

36. Colorado Lagoon Restoration Project

Local Lead: City of Long Beach

Develop a restoration plan for Colorado Lagoon, a 44-acre saltwater lagoon connected to Alamitos Bay. The project would be undertaken by the City of Long Beach Parks and Recreation Department with input from the Friends of Colorado Lagoon. The lagoon suffers from poor water quality, frequent algal blooms, and low biological diversity. The restoration plan would need to be compatible with current recreational uses and aesthetic values of the lagoon.

The lagoon is part of the historic Los Cerritos Wetlands complex. It is a saltwater body that was created by dredging a mudflat and is connected by tide gate to Alamitos Bay through the Marine Stadium. Five storm drains currently discharge into the lagoon. The tide gate is left open during the winter and is closed at times during the summer to retain enough water in the Lagoon for swimming which is allowed in the west arm of the Lagoon. The Lagoon was once a popular clamming site and still supports a considerable number of cherrystone clams. Marine fish can be found in the lagoon.

Status: Plans to modify a county storm drain that empties into Colorado Lagoon could potentially conflict with the Colorado Lagoon Restoration Project. Coastal Conservancy staff are coordinating with Los Angeles County and the City of Long Beach to resolve this potential conflict.

Estimated cost:		$200,000
Funding:	SCC-Wetlands Recovery Project	$200,000

Last updated: 4/11/2002

Lower Los Angeles River Program

- Lower Los Angeles and San Gabriel Rivers Habitat Needs Assessment
- Lower Los Angeles River Acquisitions
- DeForest Wetlands Restoration Preliminary Plan

37. Lower Los Angeles and San Gabriel Rivers Habitat Needs Assessment

Local Lead: Coastal Conservancy

Prepare a regional guide for habitat restoration in the Los Angeles River and San Gabriel River Basins to guide the creation of an ecologically linked network of open space currently being pursued by several different independent organizations and agencies. The guide would be available to individuals who are planning a restoration or open space project (e.g., citizen groups, city managers, consultants) to learn what habitat types should be targeted given the project's location in the basin and what habitat restoration design goals should be followed to create and maintain functioning and sustainable habitat. This information has not been synthesized in planning documents to date and would be instrumental in maximizing the habitat value of individual open space projects by integrating them with neighboring patches of open space.

The guide would summarize the historic distribution of habitat types (e.g., coastal prairie, lowland riparian, coastal sage scrub, oak woodland) within the basins on a map, provide a description of the habitat types including the plant species and vegetation structure required to support indicator

wildlife species. Principles and goals would be established to guide the design and maintenance of needed habitat that is appropriate for the project location and ecologically supports neighboring open space. Tips would be provided for integrating habitat design with other project goals typical for the urban setting such as recreation and public safety.

Status: The Coastal Conservancy is developing a scope of work with the Los Angeles and San Gabriel Rivers and Mountains Conservancy. The study is expected to begin in fall 2002.

Estimated cost: $100,000

Funding: SCC-Wetlands Recovery Project $100,000

Last updated: 4/11/2002

38. DeForest Wetlands Restoration Preliminary Plan

Local Lead: City of Long Beach

Prepare a preliminary plan, environmental review document, and permits for creation of wetland and riparian habitat along approximately 1 mile of the east bank of the Los Angeles River. The De Forest Park site is approximately 38 acres located on the east side of the Los Angeles River extending about 6,600 feet between the developed DeForest Park to the north and Del Amo Boulevard to the south. The project has multiple objectives including increasing and enhancing wetland and riparian habitat, imiproving water quality, and enhancing recreational opportunities.

Restoration of DeForest Basin, in concert with the Dominguez Gap Spreading Ground Basin operated by Los Angeles County Public Works and acquisition of the Wrigley Heights properties by the City of Long Beach, will establish a four mile contiguous corridor of habitat and recreational open space along the Los Angeles River in Long Beach.

Status: New Project

Estimated cost: $300,000

Funding: SCC-Wetlands Recovery Project $300,000

Cost Notes: Conceptual planning was funded by the Coastal Conservancy with money designated for the Los Angeles River in Prop. 204. Implementation funding will come from a variety of sources.

Last updated: 5/7/2002

39. Lower Los Angeles River Acquisitions

Local Lead: City of Long Beach

Acquire properties adjacent to the lower Los Angeles River suitable for wetland and riparian restoration projects. Several properties along the lower Los Angeles River have been identified as possible sites for wetland restoration. Negotiations for these sites are in varied stages. Potential sites include:

Edison property: 72 acres. The property is located on the west bank of the river between Del Ammo Blvd. and Artesia Blvds. It is zoned for public access and flood control. Edison is currently marketing the property for commercial development.

Wrigley Heights, North: 15.8 acres. Located east of the river and north of the 405 freeway. The site is adjacent to the Dominguez Gap spreading grounds. Owner appears willing to sell. The City of Long Beach would like to acquire the property. Approximately 9.6 acres would be used for possible recreation, and 6.2 acres for riparian restoration. Estimated cost is $4,000,000.

Wrigley Heights, South: 24.7 acres. Property is located on the east side of the river between Wardlow Road and the 405 freeway. Site was used for an oil/water separation facility. There is now a horse stable on the property. The City of Long Beach would like to acquire the property for a mixed-use park, including a wetland restoration at the site of the former separation facility. The current owners would be responsible for site clean up. Estimated cost is $4,000,000.

Southern Pacific Transportation Site: 11 acres. Located adjacent to the Sixth Street Wetlands Restoration site being pursued by the City of Long Beach and the Coastal Conservancy. City would like to acquire property for a mixed use park, including an extension of the Sixth Street wetland restoration. Estimated cost is $10,000,000.

Status: Conservancy staff are working with the City of Long Beach on several potential acquisition sites. No acquisition is anticipated within the next six months.

Estimated cost:		$20,000,000
Funding:	SCC-Wetlands Recovery Project	$2,000,000

Cost Notes: Cost estimate is very preliminary and includes more than the wetland restoration areas.

Last updated: 4/11/2002

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40. Big Tujunga Wash Revegetation and Restoration

Local Lead: California Environmental Project

Enhance approximately 150 acres of the Big Tujunga Wash by removing invasive species, planting native vegetation, and repairing eroding trails. Big Tujunga Wash is a tributary to the Los Angeles River. The project area is located in the flood plain of Big Tujunga Creek and is under the jurisdiction of the Los Angeles Department of Water and Power. Project implementation began in Fall 2000, but had to be halted when NRCS funding of the Los Angeles Urban Resources Partnership was cut.

Status: CEP continues to implement this multi-year project. The removal phase is about 80% complete and the revegetation component has just begun. The WRP has not begun work on this project due to limited staff resources. The Coastal Conservancy will begin work on remaining projects as quickly as possible.

Estimated cost:		$153,680
Funding:	SCC-Wetlands Recovery Project	$83,000
	NRCS -- Los Angeles Urban Resources Partnership	$14,200
	In-Kind	$45,480
	Center for Natural Lands Management	$6,000
	Philip Morris	$5,000

Last updated: 4/9/2002

41. Ballona Wetlands Area C Assessment and Conceptual Restoration Study

Local Lead: To be determined

Perform an ecological assessment of Area C of the Ballona Wetlands and identify conceptual restoration alternatives for the site. Area C includes 73 acres of land located north of Ballona Creek and east of Lincoln Blvd. The northwest end of the property is connected to tidal flow from Santa Monica Bay through Marina del Rey. The study will survey and map existing resources on the property; perform a hydrologic assessment of the property, including tidal flow; identify opportunities and constraints for restoring and enhancing wetland resources on the site, including options for increasing tidal circulation; and provide recommendations for next steps.

The study will begin after the outcome of the current negotiations for acquisition of portions of Areas A and B is known. If additional property is acquired, those areas will be included in the study.

Status: New Project

Estimated cost:	$100,000

Funding: SCC-Wetlands Recovery Project $100,000

Cost Notes: Cost estimate is preliminary.

Last updated: 5/7/2002

42. Ballona Wetlands Acquisition

Local Lead: Trust for Public Land

Acquire from willing sellers properties within the Ballona Wetlands complex. The Ballona wetlands complex is located at the mouth of Ballona Creek. The Ballona and Los Cerritos wetlands complexes are the largest remaining areas for tidal marsh restoration in Los Angeles County, which has lost over 90 percent of its coastal wetlands. Potential parcels for acquisition include:

Area A -- Located north of Ballona Creek and west of Lincoln Blvd. Area A is undeveloped with the exception of a parking area along the western boundary and a drainage channel along the northern boundary. Although the drainage ditch is connected by culvert to Marina del Rey, there is no tidal exchange because the bank height and the elevation of surrounding lands are above high tide ranges.

Area B -- Located south of Ballona Creek and west of Lincoln Blvd. Area B contains the largest area of remnant wetlands, with gas and oil wells along the base of the bluffs to the east and fallow agricultural lands to the north. Area B receives tidal flows from Ballona Creek; however, however, the tidal prism is very muted by tidal flap gates on the creek.

Status: New Project

Estimated cost: Not available.

Funding: SCC-Wetlands Recovery Project--Prop 12 $25,000,000

Cost Notes: Proposition 12 included $25 million specifically for acquisition and restoration at Ballona wetlands.

Last updated: 4/12/2002

43. Topanga Lagoon Restoration Technical Assessments

Local Lead: RCD of the Santa Monica Mountains

Develop preliminary plan for restoration of Topanga Lagoon based on conceptual plan in Topanga Lagoon and Watershed Restoration Feasibility Study. WRP funding will be used specifically to evaluate the composition of the soil fill in the areas designated in the Feasibility Study for potential lagoon restoration. Approximately 20-30 acres of fill material over 35 feet deep was placed into the former Topanga Lagoon by Caltrans in 1934 when Pacific Coast Highway (PCH) was re-aligned. In order to assess the potential for beach and nearshore disposal of sediment removed, borings will be taken along two transects perpendicular to Topanga State Beach and also at the PCH bridge pads. Samples will be tested in the laboratory for particle size distribution and for chemical compounds. Gradation curves will be analyzed and used to establish grain size criteria for disposal. All samples will be archived for possible additional testing in the future.

Status: New Project

Estimated cost: $309,762

Funding: SCC-Wetlands Recovery Project $76,762
Santa Monica Bay Restoration Project $233,000

Last updated: 4/18/2002

Malibu Creek Lagoon and Watershed Program

- Malibu Lagoon Habitat Enhancement Program
- Cross Creek Road Fish Passage
- Upper Malibu Creek Feasibility Study (Rindge Dam)
- Cold Creek Riparian Acquisitions, Part 2
- La Sierra Riparian Acquisition

44. Malibu Lagoon Habitat Enhancement Program

Local Lead: California Department of Parks and Recreation

Enhance wetland habitats at Malibu Lagoon by enhancing tidal circulation and controlling water levels. The enhancements were recommended in the 1999 Malibu Lagoon enhancement plan prepared by UCLA. Heal the Bay will work with State Parks to implement the project. The project has two key elements.

The first part involves preparation of engineering designs to reconfigure tidal channels in two areas of Malibu Lagoon to enhance tidal circulation. The phase I area covers 1.2 acres on the east side of the lagoon. The phase II area includes 16.1 acres on the west side of the lagoon, but could be enlarged by another 11.4 acres if adjacent property is acquired. Channels in both areas have 90 degree turns and blind ends which inhibit tidal circulation. These areas of the lagoon often have low dissolved oxygen levels. The project would also develop an upland island on the east side of the lagoon to provide protected habitat for ground-nesting birds. Enhancements for the phase II area will be designed to be compatible with possible future expansion of the lagoon.

The second project element involves Installation of an inflatable weir to control water levels in Malibu Lagoon at times when the lagoon mouth is closed to tidal action by a sand berm. The goal of the project would be to keep the water level in the lagoon below four feet above msl. Keeping the water level from rising higher would reduce leaching from nearby septic fields and would keep the lagoon's mudflats exposed. The lagoon would remain shut to tidal action until opened naturally by winter storms. When water levels in the closed lagoon exceed 4 feet msl, water would spill out onto the beach over the weir. During the rainy season, the weir would be deflated but would remain in place.

Status: The scope of work for redesign of the tidal channels is being refined. This portion of the project is expected to be funded in Fall 2002. For the inflatable weir, enviornmental review must be completed before implementation can proceed.

Estimated cost:		$575,000
Funding:	SCC-Wetlands Recovery Project	$650,000
	Regional Water Quality Control Board	$20,000
	Dept. of Parks and Recreation	$85,000
	County of Los Angeles	$1,085,000

Last updated: 5/7/2002

45. Cross Creek Road Fish Passage

Local Lead: Malibu Coastal Land Conservancy

Replace the Cross Creek Road arizona crossing of Malibu Creek which blocks steelhead passage with a one-lane bridge. The Cross Creek Road crossing is located approximately 0.4 miles upstream of the ocean and 2.1 miles downstrean of Rindge Dam. It is the most significant steelhead barrier between the ocean and Rindge Dam. The road crossing connects the public portion of Cross Creek Road with private property across the stream.

The specific project will involve construction of a one-lane bridge spanning Malibu Creek at the location of the existing road crossing. A conceptual plan for the bridge is complete. The bridge would be approximately 100 feet long. The bridge height will allow streamflow to pass under the

bridge during typical baseflow conditions and up to the 3- to 5-year flood flow events. Higher flow would pass over the bridge, necessitating that the bridge railings bend over on a hinge so floating debris does not accumulate on the vertical railing. The homeowners association will own and maintain the bridge.

Status: New Project

Estimated cost:		$620,000
Funding:	SCC-Wetlands Recovery Project	$310,000
	Serra Canyon Homeowner's Association	$150,000

Cost Notes: $470K was requested from the WRP.

Last updated: 4/12/2002

46. Upper Malibu Creek Feasibility Study (Rindge Dam)

Local Lead: California Department of Parks and Recreation

Conduct USACOE feasibility study for management of the Upper Malibu Creek watershed. The feasibility study will evaluate options for extensive restoration and enhancement of riparian and aquatic systems above Malibu Lagoon, including possible removal of Rindge Dam. Enhancements for endangered steelhead trout and riparian bird habitat would be a major emphasis of the study. The California Department of Parks and Recreation is the local sponsor for the project.

Status: The Department of Parks and Recreation and the Army Corps of Engineers are negotiating a local sponsor agreement for the project. Work on the Feasibility Study will commence once the local sponsor agreement has been signed by both parties.

Estimated cost:		$2,000,000
Funding:	SCC-Wetlands Recovery Project	$500,000
	SCC--Santa Monica Bay Restoration Project	$200,000
	Dept. of Parks and Recreation (in-kind)	$375,000
	Dept. of Parks and Recreation (cash)	$150,000
	Regional Water Quality Control Board	$10,000
	U.S. Army Corps of Engineers	$750,000
	Los Angeles County	$100,000

Cost Notes: Cost estimates are preliminary. A 50% non-federal match is needed.

Last updated: 4/11/2002

47. Cold Creek Riparian Acquisitions, Part 2

Local Lead: Mountains Restoration Trust

Acquire an additional 107.7 acres of riparian and upland habitat along Cold Creek, a perennial tributary to Malibu Creek, for inclusion in the 1015-acre Cold Creek Preserve. The subject acquisitions will continue the 10-year acquisition strategy of the State Coastal Conservancy-funded Cold Creek Restoration Plan to acquire properties integral to the preservation of Cold Creek, a wild, pure and scenic stream in the Santa Monica Mountains National Recreation Area. Major project tasks for each acquisition will include: preparation of appraisal, completion of negotiations, compilation of funding sources, order of preliminary title report, opening of escrow, review of title issues, and closing of escrow.

The Cold Creek riparian corridor is located within a coastal watershed of the Santa Monica Mountains of Los Angeles County. Its pristine habitat has been designated a Significant Ecological Area and Environmentally Sensitive Habitat Area. Described as a natural sandstone basin, it contains a free, perennial spring-fed stream shaded by a dense riparian canopy, and a diverse mixture of native vegetation types and sensitive natural resources. The project site contains 107.7 acres, including approximately 25 acres of existing wetland habitat along Cold Creek and 3200 feet of stream corridor. Primary vegetation communities include chaparral, coastal sage scrub (mainly

covering south-facing aspects), grassland, oak woodland, and sycamore/oak/willow riparian woodland with obligate wetland plant species. Cold Creek runs from east to west, creating a critical wildlife corridor between Topanga State Park and Malibu Creek State Park that provides connectivity and habitat linkages for wildlife movement, dispersal, and re-colonization of core habitat areas following natural disturbances. Cold Creek is one of the few natural streams in the Santa Monica Mountains that has not been invaded by non-native aquatic species.

Status: New Project

Estimated cost:		$2,592,670
Funding:	SCC-Wetlands Recovery Project	$1,192,670
	Habitat Conservation Fund	$600,000
	Donated Land Value	$800,000

Last updated: 4/12/2002

48. La Sierra Riparian Acquisition

Local Lead: Mountains Restoration Trust

Acquire approximately 61.27 acres of wetland, riparian and upland habitat that support La Sierra Lake in the Malibu Creek watershed. The acquisition includes a portion of the lake, four blue-line streams, and the seeps and ephemeral watercourses in the uplands that protect the water source for this three-acre, year-round lake. The primary vegetation communities found on the project site include riparian woodlands, dominated by coast live oak, California bay-laurel, and western sycamore. La Sierra Lake supports 35 obligate and associated wetland plant species, two aquatic mosses, and a rare vernal pool species which has only been reported one other time since 1891 in the Santa Monica Mountains. The project site is immediately downstream from a primarily undisturbed watershed that supports a series of oak, sycamore, willow, and mixed oak and bay riparian plant communities, and is adjacent to the county-designated La Sierra Canyon Significant Ecological Area which was identified for its coast live oak, big leaf maple and California bay associations.

An appraisal was completed for the property in 1998. With project funding, the appraisal and preliminary title report will be updated, title insurance acquired, and escrow opened. The Mountains Restoration Trust will own and manage the property as a nature preserve.

Status: New Project

Estimated cost:		$1,674,595
Funding:	Habitat Conservation Fund	$300,000
	L.A. County Oak Tree Fund	$10,000
	Community Donations	$50,000
	Donated Land Value	$500,000

Cost Notes: The project is located outside of the coastal zone, but within the Santa Monica Mountains Conservancy zone. WRP funding through the Coastal Conservancy may be possible through the mechanism of a Joint Powers Agreement.

Last updated: 4/12/2002

49. Solstice Creek Steelhead Enhancement Design Plans

Date Funded: 3/01

Local Lead: RCD of the Santa Monica Mountains

Prepare engineering plans, permits, and environmental review documents for project to restore steelhead access to approximately 1.5 miles of Solstice Creek by removing barriers to passage. The project will remove all barriers to steelhead passage and also includes restoration of streambed and riparian habitat. Solstice Creek is located approximately one mile west of Malibu Creek in the Santa Monica Mountains. It has been identified as a primary candidate for recovery of the southern steelhead trout, a federal endangered species.

In a related effort, the National Park Service is removing one Arizona crossing on Solstice Creek. Construction on this project began in May 2002.

Status: Engineering plans, permits, and environmental review documents should be completed by the end of 2003.

Estimated cost:		$394,000
Funding:	SCC-Wetlands Recovery Project	$61,000
	Coastal Conservancy -- Prop 12	$61,000
	Caltrans	$66,250
	National Park Service	$206,450

Cost Notes: Estimate $420,000 total for implementation.

Last updated: 4/11/2002

Calleguas Creek and Watershed Program

- Lower Conejo Creek Acquisition

50. Lower Conejo Creek Acquisition

Local Lead: To be determined

Acquire approximately 80 acres along Conejo Creek for restoration of flood plain and riparian habitat. The property is on Conejo Creek at its confluence with Calleguas Creek. The project will also involve acquiring an agricultural and conservation easement for adjacent farm property. Future restoration activities would include widening the flood plain and allowing the creek to meander more freely in this area. Substantial removal of exotics would also be needed.

The Habitat Subcommittee of the Calleguas Creek Watershed Steering Committee has approved the acquisition as a priority, and a conceptual restoration plan is being prepared

Status: The Coastal Conservancy has made a prospective offer to the landowner. Acquisition is expected in Fall 2002.

Estimated cost:		$1,500,000
Funding:	SCC-Wetlands Recovery Project	$750,000
	Coastal Conservancy-In lieu mitigation fees	$600,000

Cost Notes: Cost estimate is preliminary. The Conservancy has approximately $1.5 million of in-lieu mitigation fees available for acquisition and restoration of this property and other riparian restoration projects in the Calleguas watershed. .

Last updated: 4/11/2002

51. Ormond Beach Wetlands Acquisition

Local Lead: Coastal Conservancy

Acquire in fee or through a conservation easements, the privately owned portions of the Ormond Beach wetlands. Potential properties include:

Edison property. The site is approximately 300 acres on the coast south of the City of Oxnard located between Edison Drive and Arnold Road. It includes approximately 200 acres of wetlands and dunes, and a tank farm that covers 60 acres. Anticipated restoration would include modifications of the site hydrology to reintroduce tidal action and bring back freshwater flows that had formerly drained across the Oxnard Plain to the coastal wetlands.

MWD property. Approximately 309 acres are owned by the Metropolitan Water District (MWD) and City of Oxnard. MWD tentatively plans to build a pumping plant for a desalination plant on approximately 20 acres of the property. Wetlands could be restored on the unused portion of the

property. MWD acquired the property in 1998 for $10 million.

Adjacent agriculture property. Approximately 300 acres of adjacent agriculture serve as a buffer to the wetlands. Possible actions include purchasing an agricultural easement to ensure that area is not more intensively developed, or acquisition of fee title to restore wetland and grassland habitat.

Status: The Coastal Conservancy is negotiating with several landowners in the Ormond Beach area, including Southern California Edison and the City of Oxnard, for acquisition of properties at the Ormond Beach wetlands.

Estimated cost:		$20,000,000
Funding:	SCC-Wetlands Recovery Project	$5,000,000

Cost Notes: Cost estimates are very preliminary.

Last updated: 4/11/2002

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52. Ormond Beach Wetlands Restoration Plan

Local Lead: Coastal Conservancy

Prepare restoration plan for the 900-acre Ormond Beach wetlands area. The restoration plan will evaluate options for: restoring tidal action to portions of the property; restoring historic drainage patterns disrupted by filling and tile drainage systems installed for agricultural use; and recreating a mix of tidal and seasonal wetlands with associated grasslands.

Status: The scope of work for the Restoration Plan is complete. The study is expected to begin in Summer 2002 and will take approximately 18 months to prepare.

Estimated cost:		$325,000
Funding:	SCC-Wetlands Recovery Project	$200,000
	U.S. Environmental Protection Agency	$125,000

Cost Notes: Cost estimate is very preliminary

Last updated: 4/12/2002

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53. Santa Clara River Parkway Acquisitions, Part 1

Date Funded: 6/01

Local Lead: The Nature Conservancy

Acquire fee title or conservation easements to approximately 2,000 acres along the lower 15 miles of the Santa Clara River for inclusion in the Santa Clara River Parkway. Approximately 6,000 acres within the meander belt of the river and with upland connections into South Mountain have been mapped out for inclusion in the river parkway. Approximately 2,000 of these acres are already in public ownership. The initial acquisition program will focus on the estuary and lower river and then move upstream. Following acquisition, riparian and floodplain restoration projects will be pursued.

Status: Approximately 670 acres have been acquired along 4 miles of the river. Several properties have been acquired under this program (see Santa Clara River Parkway Acquisitions, Part 1). Negotiations for additional acquisitions are ongoing.

Estimated cost:		$6,200,000
Funding:	SCC-Wetlands Recovery Project	$1,000,000
	Coastal Conservancy--Prop 13	$5,200,000

Last updated: 4/11/2002

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54. Santa Clara River Parkway Acquisitions, Part 2

Date Funded: 6/01

Local Lead: The Nature Conservancy

Acquire fee title or conservation easements to approximately 2,000 acres along the lower 15 miles of the Santa Clara River for inclusion in the Santa Clara River Parkway. Approximately 6,000 acres

within the meander belt of the river and with upland connections into South Mountain have been mapped out for inclusion in the river parkway. Approximately 2,000 of these acres are already in public ownership. The initial acquisition program will focus on the estuary and lower river and then move upstream. Following acquisition, riparian and floodplain restoration projects will be pursued.

Status: The second round of the Santa Clara River Parkway acquisitions will begin once all the funds from the first round have been expended (see Santa Clara River Parkway Acquisitions, Part 1).

Estimated cost:		$15,000,000
Funding:	SCC-Wetlands Recovery Project	$2,000,000
	Coastal Conservancy	$4,000,000

Last updated: 4/11/2002

Ventura River Watershed Program

- Ventura River Arundo Removal Project
- Matilija Dam Feasibility Study

55. Ventura River Arundo Removal Project

Local Lead: County of Ventura Flood Control District

Remove Arundo donax from a 5-acre parcel adjacent to the Ventura River and revegetate with native riparian species. The project will serve as a demonstration project to evaluate Arundo removal methods and six different riparian revegetation treatments. Three replicates of the revegetation treatments will be done to ensure statistically reliable results. The Ventura County Flood Control District will serve as lead agency for the project on behalf of the Ventura County Arundo Task Force.

The Demonstration Project is located along the east bank of the Ventura River in Casitas Springs. The Ventura County Flood Control District and the City of Ventura own the project site. This portion of the Ventura River supports patches of mule fat scrub and willow-dominated riparian scrub within the broad river bottom. Upper floodplain terraces outside of the riverbanks support alluvial scrub vegetation accented by large sycamore and eucalyptus trees. The river substrate is primarily cobble and sand.

Status: The County is preparing an EIR for Arundo removal throughout the watershed. The EIR should be completed in late Spring 2003. Implementation of the demonstration project can not begin until the EIR is complete. Implementation is expected to begin in mid-2003.

Estimated cost:		$355,700
Funding:	SCC-Wetlands Recovery Project	$159,500
	Dept. of Fish and Game	$63,500
	Natural Resource Conservation Service	$69,200
	County of Ventura Flood Control District	$63,500

Last updated: 5/7/2002

56. Matilija Dam Feasibility Study

Date Funded: 10/00

Local Lead: Bureau of Reclamation

Prepare feasibility study for removal of Matilija Dam on the Ventura River. Study will be headed by either the U.S. Bureau of Reclamation. The purpose of the project is to remove barriers to steelhead passage, restore natural hydrologic regimes on the river, and restore riparian and wetland habitat. The study will include a complete profile of the sediments behind the dam and characterization of the historic and current channel of the river. It will also include a new hydrological analysis. Once these analyses are completed, they will be used to further refine the

potential methodologies for removing the dam and moving the sediment. Environmental studies will then be undertaken which will lead to a decision on a specific projects.

Matilija Dam is a relatively large concrete arch dam. It is nearly 200 feet high from bedrock to its highest point. It spans over 600 feet at the top. Built in 1947, the dam was intended for both water supply and flood control. Since its construction the reservoir behind the dam has filled with sediments.

Status: Study is underway and is scheduled for completion at the end of 2004.

Estimated cost:		$2,335,000
Funding:	SCC-Wetlands Recovery Project	$750,000
	Coastal Conservancy	$1,000,000
	U.S. Geological Service	$200,000
	U.S. Bureau of Reclamation	$200,000
	U.S. Army Corps of Engineers or Bureau of Rec	$150,000
	County of Ventura (inkind)	$35,000

Cost Notes: The WRP also contributed $200,000 for pre-feasibility studies.

Last updated: 5/7/2002

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57. Carpinteria Creek Restoration Project

Local Lead: Community Environmental Council

Remove steelhead passage barrier and enhance riparian habitat along Carpinteria Creek. Several projects to improve access to steelhead habitat and enhance riparian habitat have been identified in the Carpinteria Creek Watershed Management Plan. WRP funding will be targeted to replacing an Arizona crossing that blocks steelhead passage with a bridge, enhancing approximately 2.5 acres of surrounding riparian habitat, and stabilizing 500 feet of creek bank. The project site is a 17-acre parcel located in the coastal zone about 2.5 miles upstream from where the creek empties into the Pacific.

Carpinteria Creek is located in coastal Santa Barbara County, about 10 miles southeast of the City of Santa Barbara and 16 miles northwest of the City of Ventura. It begins in the Santa Ynez Mountains at an elevation of about 4,700 feet and drains a watershed of about 15 square miles, characterized by steep hillsides and canyons. Biologists for the California Department of Fish & Game believe that Carpinteria Creek offers the best opportunity among all South Coast urban streams for restoring significant steelhead runs in the next few years.

Status: New Project

Estimated cost:		$412,900
Funding:	SCC-Wetlands Recovery Project	$300,000
	Cachuma RCD	$15,000
	Watershed Coalition	$16,000
	County of Santa Barbara	$7,800
	Cate School	$27,000

Cost Notes: $348K was requested from WRP.

Last updated: 4/19/2002

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58. Carpinteria Salt Marsh, Basin 1 Enhancement Plan

Date Funded: 3/00

Local Lead: Land Trust of Santa Barbara County

Prepare an enhancement plan for restoration of Basin 1, approximately 23 acres in the Carpinteria Salt Marsh. The Carpinteria Salt Marsh Preserve/Reserve Management Plan includes a recommendation that this portion of the marsh be enhanced, now that the Ash Avenue section of

the marsh restoration is complete. The property is located just west of the Ash Avenue restoration site. The Land Trust of Santa Barbara County owns the property. The enhancement plan will be developed in coordination with the Santa Barbara County Flood Control District's proposed enhancement/mitigation projects.

Status: The enhancement plan is complete. CEQA documents are in preparation. The project will be ready for implementation in early 2003, provided sufficient funding can be secured.

Estimated cost:		$100,000
Funding:	SCC-Wetlands Recovery Project	$100,000

Last updated: 4/11/2002

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59. Carpinteria Salt Marsh, Basin 1 Implementation

Local Lead: Land Trust of Santa Barbara County

Restore and enhance approximately 17 acres of wetlands and 19 acres of transitional and upland habitat at Carpinteria Salt Marsh. The project site includes the Basin 1 and South Marsh areas of Carpinteria Salt Marsh. Project elements include: deepen existing tidal connections and establish new ones, including cutting through or installing culverts in existing berms; remove non-invasive exotic vegetation and replant with native vegetation; and restore and improve tidal flushing by modifying the tidal inlet to the ocean, which has been altered by past flood control measures. The proposed project will result in an increase of tidal channels, salt marsh, brackish marsh, transition, and willow scrub habitat types. The project is designed to be compatible with SBCFCD's planing for flood control channel and berm modifications and future maintenance plans.

The Carpinteria Salt Marsh is located in southeastern Santa Barbara County adjacent to the City of Carpinteria. The project site is 36 acres within a 230-acre salt marsh in the coastal plain of Carpinteria, and is surrounded by urban development, agricultural fields, US Highway 101, a railroad, and single-family homes. Basin I is approximately 24 acres of wetlands, uplands, and creek channels, and South Marsh is approximately 12 acres of degraded marsh. Natural upland habitats surrounding the marsh are limited due to the extent of urban development in the area. Much of the upland habitats are disturbed and dominated by non-native species. Pickleweed is the predominant wetland plant. Small patches of coastal scrub and willows can be found at scattered locations around the upper edges of the marsh. A small section of brackish marsh featuring alkali balrush exists in Basin I.

Status: New Project

Estimated cost:		$1,229,000
Funding:	SCC-Wetlands Recovery Project	$525,000
	U.S. Fish and Wildlife Service (intend to apply)	$500,000
	County of Santa Barbara CREF (intend to apply)	$75,000
	Foundations (intend to apply)	$120,000
	Community Donations	$35,000

Last updated: 4/19/2002

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60. Santa Barbara Urban Streams and Wetlands Restoration Project

Date Funded: 10/00

Local Lead: Community Environmental Council

Implementation of the San Jose Creek Restoration Plan and preparation of an enhancement plan for four Santa Barbara County watersheds. This project is the first in a multi-phased effort to enhance coastal urban creeks in southern Santa Barbara County. In the first part of the project, recommendations from the San Jose Creek restoration plan will be implemented. This includes preparation of a CEQA document, permits, and final design and engineering plans. The project also involves preparation of an enhancement plan for the Goleta Slough, Arroyo Burro, Mission Creek

and Carpinteria Creek watersheds. This plan will focus on ways to address watershed issues including sedimentation and erosion, water quality, riparian and wetland habitat, and flood management.

Status: Project is underway and should be complete at the end of 2003.

Estimated cost:		$280,000
Funding:	SCC-Wetlands Recovery Project	$280,000

Last updated: 4/4/2000

61. Mission Creek Museum Area Restoration Plan

Local Lead: Community Environmental Council

Prepare restoration plan for removal of invasive species, revegetation, implementation of stormwater best management practices, and installation of interpretive trails and exhibits along Mission Creek. The project would integrate habitat restoration with stormwater management and public education. Its key components are: removal of invasive weeds in the understory and revegetation with native plants on 5 acres of streambank and riparian woodland; rehabilitation of vegetated bioswales and installation of storm drain filters; removal of impervious asphalt next to the creek and its replacement with vegetative buffers and porous pavement; and development and installation of interpretive trails and exhibits to explain the value of the restoration work, creek stewardship, and stormwater BMPs.

The project site encompasses approximately 13 acres along Mission Creek, about four miles upstream from the creek's outfall. The property is owned by the Santa Barbara Museum of Natural History, St.Mary's Retreat House, and St. Anthony's Seminary. The primary vegetation communities are riparian and oak woodlands, with some riparian scrub on the southern bank. The native canopy is well developed with western sycamore and coast live oak as the dominant species. Steelhead trout frequent a pool in the creek on the grounds of the Museum. The project is sponsored by the Mission Creek Restoration Partnership, an unincorporated, community-based collaborative of residential and institutional landowners, nonprofit organizations, and agencies of the City and County of Santa Barbara.

Status: New Project

Estimated cost:		$120,000
Funding:	SCC-Wetlands Recovery Project	$110,000
	County of Santa Barbara	$7,800
	SB Natural History Museum	$2,200

Cost Notes: Preliminary cost estimate for planning and implementation is $1 million dollars. The Natural History Museum will contribute a total of $128K to project costs.

Last updated: 4/19/2002

62. Summerland/Greenwell Preserve Restoration

Date Funded: 9/01

Local Lead: Summerland Greenwell Preserve

Restore 2-acres of riparian habitat at the Summerland/Greenwell Preserve. The preserve sits at the confluence of three small drainages that are relatively undeveloped. It is located about one-half-mile from the ocean, in the coastal zone. The project site contains a spring-fed perennial creek. A restoration plan has been prepared for the site. Restoration activities will include planting native trees, installing irrigation, and stabilizing the hillside. There are also two historic buildings located on the preserve. Property is owned by the County of Santa Barbara, and leased to the Summerland Citizens Association.

Work done to date includes preparation of landscape plan, demolition of a large industrial garage, removal of asphalt, restoration of natural topography around pond, and removal of non-native vegetation. All of the work was completed with volunteer labor.

Status: Project implementation should be complete by late 2002.

Estimated cost:		$181,737
Funding:	SCC-Wetlands Recovery Project	$40,000
	California Resources Agency	$40,000
	Santa Barbara County-CREF	$20,000
	Summerland/Greenwell Preserve	$81,827

Cost Notes: Approximately $120,000 has already been spent (from County and Summerland Citizens Assoc.). Of the remaining work, approximately $38,500 is needed to complete the riparian restoration.

Last updated: 4/11/2002

63. Goleta Slough Tidal Restoration Study

Local Lead: Santa Barbara Municipal Airport

The objective of the Goleta Slough Tidal Restoration Study is to obtain experimental data that can adequately address the FAA's concerns and resolve the bird-strike issue at Goleta Slough (see below). This will be achieved by introducing tidal action to one or more of the airport's basins in Goleta Slough and monitoring the results for two to three years, with monitoring focused primarily on bird use. Control basins will also be monitored. Participating agencies will developing the study plan, including specific restoration actions, monitoring protocols, study duration, and the methodology for assessing the bird-strike hazard. A key element of the study, required by the FAA, will be that if at any time the monitoring data indicates that tidal circulation has caused an increase in the bird-strike hazard, the study will be halted and the basin(s) will be returned to former conditions (i.e., non-tidal).

The FAA has expressed concern that restoration of tidal action to basins that are now seasonally ponded would increase the bird strike hazard at Santa Barbara Airport. Preliminary studies predict that although restoring tidal action might increase annual bird use in the basins, it would not increase, and might even decrease the bird strike hazard. This conclusion is based on the fact that in general shorebirds using tidal wetlands are smaller and lower-flying than the waterfowl which currently use the seasonal ponds. The FAA is opposed to implementing any tidal restoration projects at the slough until this theory has been empirically shown to be correct.

Status: The Feasibility Study for the Goleta Slough Tidal Restoration Study was completed in March 2002. The City of Santa Barbara is consulting with resources agencies and the FAA before proceeding. The next step will be completion of environmental review and permitting. The experimental study could begin in early 2003.

Estimated cost:		$400,000
Funding:	SCC-Wetlands Recovery Project	$200,000
	County of Santa Barbara	$200,000

Cost Notes: Study design, environmental review, and permitting will cost $150K. Cost estimates are very preliminary.

Last updated: 4/11/2002

64. UCSB Campus Lagoon Enhancements

Local Lead: University of California, Santa Barbara

Enhance approximately 2 acres of salt marsh and sand dune habitat adjacent to the UCSB Campus Lagoon, and prepare restoration plans for three additional areas around the lagoon. The project has two main components. The first involves enhancement of approximately 0.25 acres of salt marsh habitat and surrounding dune habitat at the "West Depressions" area of UCSB Campus Lagoon. Primary activites include removal of exotic species, revegetation, and trail and road improvements. The second component is preparation of final engineering plans for enhancements

at
* San Nicholas Wetlands -- 3 acres total, 2 acres of wetland
* Lagoon Island -- 22 acres total, 7 acres of wetland, 5 of which would be created vernal pools
* Campus Point -- 10 acres, 2 acres of wetlands

Status: New Project

Estimated cost:		$232,870
Funding:	SCC-Wetlands Recovery Project	$150,000

Cost Notes: $232,870 requested from WRP.

Last updated: 4/19/2002

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65. Devereux Slough/Ellwood Mesa Regional Plan

Date Funded: 9/01

Local Lead: County of Santa Barbara

Complete amendments to the Deveruex Slough/Ellwood Mesa Regional Plan for UCSB-, County- and privately-owned land. The project includes a park master plan to protect resources on the County's property. It will also evaluate the potential for transfer of development rights from the privately-owned property, which supports higher value natural areas, to the County-owned parcel. The proposed project includes implementation of a restoration project on the County owned property. Estimated cost of the restoration project is $50,000.

Ellwood Mesa comprises a major portion of the Devereux Creek watershed approximately ¼ mile upstream of Devereux Slough, and supports a diverse ecosystem of vernal pools, riparian habitat, native grasslands, and one of the three largest Monarch butterfly over-wintering sites west of the Rockies.

Status: Draft plan has been released to the public. Project is now on hold until the newly incorporated City of Goleta has evaluated the plan.

Estimated cost:		$349,000
Funding:	SCC-Wetlands Recovery Project	$110,000
	California Resources Agency	$75,000
	Coastal Commission	$24,000
	County of Santa Barbara	$90,000

Last updated: 5/8/2002

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66. WRP Small Grants Program 01-02

Date Funded: 6/01

Local Lead: Environment Now

Provide grants up to $30,000 for restoration and enhancement projects consistent with the goals of the Wetlands Recovery Project. The small grants program gives priority to projects with a significant education or community involvement element. The grant selection committee includes a representative from each of the county task forces. Selected projects include:

* Refugio Creek Arundo Removal Project
* Santa Barbara HGM Restoration Plan Design
* Goleta Slough Borgaro Parcel Transaction
* Santa Barbara Native Plant Nursery
* Ventura River Watershed Monitoring Project
* Sespe Creek Interpretive Program
* Nicholas Canyon Creek Stream Restoration
* San Joaquin Marsh Interpretive Docks
* Cottonwood Creek Enhancement
* Lopez Canyon Streambed Restoration

Status:

Estimated cost:		$250,000
Funding:	SCC-Wetlands Recovery Project	$250,000

Last updated: 3/15/2001

67. WRP Small Grants Program 02-03

Local Lead: Environment Now

Provide grants up to $30,000 for restoration and enhancement projects consistent with the goals of the Wetlands Recovery Project. The small grants program gives priority to projects with a significant education or community involvement element, and a primary objective is to build the capacity of local groups to undertake restoration projects. The grant selection committee includes a representative from each of the county task forces. Selected projects include:

* Devereux Slough North Shore Margin Restoration
* Goleta Slough High Marsh Enhancement
* Creek Watchers - Latino Outreach Project
* Wildwood Creek Restoration Project
* Nicholas Canyon Creek Restoration, Part 2
* Resource Enhancement Program in Cold Creek
* Orange County Wetlands Map and Outreach Program
*Agua Hedionda Educational Signs Project (tentative)
* Wetland Restoration & Education, Mouth of the San Diego River
* Mission Valley Preserve Restoration and Stewardship Project

Status:

Estimated cost:		$250,000
Funding:	SCC-Wetlands Recovery Project	$25,000
	Earth Island Institute	$250,000

Last updated: 3/15/2001

68. WRP Technical Assistance and Program Administration

Provide technical assistance to WRP Governing Board, Managers Group, and Science Advisory Panel to further the goals of the Recovery Project. Potential uses of technical assistance funds include:

*Subregional planning documents
- identify project opportunities in a subregion
- assist in setting subregional acquisition and restoration priorities
- develop comprehensive exotics species control programs (e.g., Arundo, caulerpa, etc.).

*Pre-project evaluations, including resource surveys, appraisals, Phase I hazmat analyses, etc.
*Feasibility studies for issues that extend beyond a single project.
*Science Panel staff support and investigations of specific technical issues.
*Symposium planning and organization.
*Preparation of the WRP Regional Plan.
*Other technical assistance needs that arise.

Funds will be used on an as-needed basis with the approval of the Wetlands Managers Group.

Status:

Estimated cost:		$400,000
Funding:	SCC-Wetlands Recovery Project	$400,000

Last updated: 4/2/2001